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GENERAL ELECTRIC COMPANY  
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EXAMINER

SINKANTARAKORN, PAWARIS

ART UNIT

PAPER NUMBER

2416

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1, 10, and 18 have been considered but are moot in view of the new ground(s) of rejection. On March 17, 2008, the Examiner conducted an interview with the Applicant's attorney, Richard Emery. During the interview, the Examiner discussed the differences between Figure 4 of the application and Figure 6 of Scott et al. (USPN 5,953,340). The Examiner generally agreed that Figure 6 of Scott fails to disclose a network communication device having first and second portions that are respectively communicably connectable, *in parallel with one another*, to a first point and a second point on a bi-directional communication network. However, the Applicant's arguments are moot in view of Figure 5 of Scott et al., which is a new ground of rejection.
2. Claims 1-20 are currently pending in the application.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-20 are rejected under 35 U.S.C. 102 (b) as being anticipated by Scott ET al. (US 5,953,340).

**Regarding claim 1**, Scott et al. disclose a network communication device for bi-directional communication networks, comprising:

a first portion (see Figure 5 reference numeral 172, switch module) communicably connectable to a first point and a second point on the bi-directional communication network (see Figures 4 and 5 and relevant portions in the disclosure, a first point corresponds to the second domain 16 and a second point corresponds to the first domain 14, where the first domain and second domain are interconnected via connector ports 154 for data transfer between the two domains), the first portion being configured to manage collisions among a first set of messages transmittable from the first point to the second point (see column 9 lines 1-9 and column 10 lines 2-4, the switch module reduces the amount of data transmitted to each of the ports, which results in a reduced amount of collisions, where the switch module receiving data from the second domain (first point), filtering data to reduce collision, sending filtered data to first domain (second point) ); and

a second portion (see Figure 5 reference numeral 176, repeater module) communicably connectable, in parallel with the first portion (see Figure 5, switch module 172 is connected in parallel with repeater module 176), to the first point and the second point (see Figures 4 and 5, a first point corresponds to the second domain 16 and a second point corresponds to the first domain 14, where the first domain and second domain are interconnected via connector ports 154), the second portion being configured to transmit free of collision management a second set of messages transmittable from the second point to the first point (see column 10 lines 36-50, the

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repeater module transmits received data to all of the ports associated with the second domain (first point), which corresponds to free of collision management, where the received data is transmitted from the first domain (second point)).

**Regarding claim 2**, Scott et al. further teach the first and second messages are selected from electrical messages (see column 4 line 50, Ethernet LAN transporting electrical signal type).

**Regarding claim 3**, Scott et al. further teach the first portion is a network switch (see Figure 5 reference numeral 172, switch module).

**Regarding claim 4**, Scott et al. further teach the network switch is an analog switch or a digital switch (see column 4 line 50, network 10 in accordance with Ethernet LAN as specified in IEEE 802.3; the switch module is a digital switch).

**Regarding claim 5**, Scott et al. further teach the second portion is a network hub (see Figure 5 reference numeral 176, repeater module).

**Regarding claim 6**, Scott et al. further teach the network hub is an analog hub or a digital hub (see column 4 line 50, network 10 in accordance with Ethernet LAN as specified in IEEE 802.3; the repeater module is a digital repeater).

**Regarding claim 7**, Scott et al. further teach the first and second portions are separate devices or a single device (see Figure 5 reference numerals 172 and 176, separate components in a single adaptive networking device).

**Regarding claim 8**, Scott et al. further teach further comprising a plurality of network connections for connecting the first and second portions to the first and second points (see Figure 5, connector ports 154).

**Regarding claim 9**, Scott et al. further teach the plurality of network connections are standardized Ethernet cable connections (see column 4 line 50, Ethernet LAN).

**Regarding claims 10 and 18**, Scott et al. disclose a bi-directional communication device comprising:

- a hub portion (see Figure 5, repeater module 176, a multi-port repeater is considered to be a hub);

- a switch portion (see Figure 5, switch module 172);

- a first plurality of connections for communicably connecting the hub portion to a plurality of first points on a bi-directional communication network (see Figures 4 and 5 and relevant portions in the disclosure, a first point corresponds to the second domain 16 and a second point corresponds to the first domain 14, where the first domain and second domain are interconnected via connector ports 154 for data transfer between the two domains) and to a second point on the bi-directional communication network (see Figures 4 and 5 and column 10 lines 18-35, a second point corresponds to device 18 in the first domain 14) for transmitting messages from the second point to the first points (see Figure 5 and relevant portions in the disclosure, transferring data between the first domain 14 and the second domain 16); and

- a second plurality of connections for communicably connecting, in parallel with the hub portion (see Figure 5, switch module 172 is connected in parallel with repeater module 176), the switch portion to the plurality of first points (see Figures 4 and 5, and relevant portions in the disclosure, a plurality of first points corresponds to devices 26 and 28 in the second domain 16) and to the second point (see Figures 4 and 5 and

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relevant portions in the disclosure, a second point corresponds to device 18 in the first domain 14) for transmitting messages from the same first points to the second point (see Figures 4 and 5 and relevant portions in the disclosure, transferring data between the first domain 14 and the second domain 16);

Claim 18 is also rejected under the same reason as claim 10 above;

**Regarding claim 11**, Scott et al. further teach the hub portion is configured to transmit first messages from the second point to the plurality of first points (see column 10 lines 36-47, repeater module transmits received data to all of the ports associated with the second domain, where the received data is sent from a data device 18 in the first domain and all of the ports associated with the second domain are coupled with data devices 26 and 28 in the second domain).

**Regarding claim 12**, Scott et al. further teach the hub portion is configured to transmit the first messages without collision management (see column 10 lines 36-50, the repeater module transmits received data to all of the ports associated with the second domain (first point), which corresponds to free of collision management);

**Regarding claim 13**, Scott et al. further teach the switch portion is configured to transmit second messages from the plurality of first points to the second point (see column 10 lines 47-58, transmitting data from data devices 26 and 28 (first points) in the second domain to the switch module, and then the switch module transmits the data to the appropriate port to which addressed devices are coupled, where the addressed device is data device 18 (second point) in the first domain).

**Regarding claim 14**, Scott et al. further teach the switch portion is configured to manage collisions among the second messages (see column 9 lines 1-9 and column 10 lines 2-4 and 36-58, the switch module reduces the amount of data transmitted to each of the ports, which results in a reduced amount of collisions).

**Regarding claims 15 and 19**, Scott et al. further teach the network switch and the network hub are analog devices, digital devices, or any combination thereof ((see column 4 line 50, network 10 in accordance with Ethernet LAN as specified in IEEE 802.3; the switch module and the repeater module are digital devices).

**Regarding claims 16 and 20**, Scott et al. further teach the hub and switch portions are separate devices or a single device (see Figure 5 reference numerals 172 and 176, separate components in a single adaptive networking device).

**Regarding claim 17**, Scott et al. further teach the first and second plurality of connections are standardized Ethernet cable connections (see column 4 line 50, Ethernet LAN).

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within



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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PAO SINKANTARAKORN whose telephone number is (571)270-1424. The examiner can normally be reached on Monday-Thursday 9:00am-3:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Pao Sinkantarakorn/  
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